

Appl. No. 10/828,745
Amendment dated April 28, 2008
Reply to Office action of January 28, 2008

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-37. (canceled)

38. (currently amended) A system for determining a GNSS-defined position of a single point on a structure, which system comprises:

~~a redundant array of multiple~~ master and slave GNSS receivers;

~~multiple master and slave~~ antennas each connected to a respective receiver said
master and slave receivers respectively and mounted in fixed relation relative to each other on said structure;

a common clock or synchronized clocks connected to said receivers:

~~an~~ a non-GNSS orientation device mounted on said structure and adapted for determining its orientation; and

~~a position solution processor configured~~ means for computing a GNSS-defined position solution for said ~~structure~~ point utilizing the output of said receivers and said orientation device in unison where: (1) GNSS signals received by said antennas are ~~input to said position solution processor;~~ (2) ~~received signals are~~ sampled at the same instant by operation of a said common ~~sample clock or~~ synchronized clocks; and (3) ~~(2) the known relative orientation of said structure is input into the means for computing a position solution and utilized thereby for determining a non-relative, GNSS-defined position of said point;~~ and (3) GNSS positioning information from said receivers is incomplete due to

Appl. No. 10/828,745
Amendment dated April 28, 2008
Reply to Office action of January 28, 2008

said structure at least partially blocking GNSS signals from at least one of said

antennas; and

~~said position solution processor is adapted for computing the location of the single
point on the structure.~~

39. (canceled)

40. (canceled)

41. (currently amended) The system according to claim 38 wherein said
multiple master and slave receivers are incorporated into a single receiver unit.

42. (canceled)

43. (previously presented) The system according to claim 38 wherein
said orientation device comprises a compass.

44. (currently amended) The system according to claim ~~38~~ 47, which
includes:

~~said receiver array including a master receiver and a slave receiver;~~

said slave receiver including a temperature sensor comprising [[:]]

a thermocouple ~~attached to said temperature sensor;~~ and

said slave receiver compensating for temperature drift.

45. (previously presented) The system according to claim 38 wherein
said structure comprises a marine vessel.

46. (previously presented) The system according to claim 38 wherein
said structure is terrestrial.

Appl. No. 10/828,745
Amendment dated April 28, 2008
Reply to Office action of January 28, 2008

47. (currently amended) A system for determining a GNSS-defined position of a single point on a structure, which system comprises:

~~a redundant array of multiple master and slave GNSS receivers incorporated into a single receiver unit;~~

~~multiple antennas each a master antenna connected to a respective receiver said master receiver;~~

~~multiple slave antennas connected to said slave receiver;~~

~~and said master and slave antennas being mounted in fixed relation relative to each other on said structure;~~

~~a common clock connected to said receivers;~~

~~an orientation device mounted on said structure and adapted for determining its orientation, said orientation device comprising a GNSS receiver processing data from two or more antennas;~~

~~a position solution processor configured means for computing a GNSS-defined position solution for said structure point utilizing the output of said receivers in unison where: (1) GNSS signals received by said master antenna and one of said slave antennas are input to said position solution processor; (2) received signals are sampled at the same instant by operation of [[a]] said common sample clock; and (3) the known relative orientation of said structure is input into the position solution processor; and (2) GNSS positioning information from said receivers is incomplete due to said structure at least partially blocking GNSS signals from at least one of said antennas;~~

Appl. No. 10/828,745
Amendment dated April 28, 2008
Reply to Office action of January 28, 2008

~~said position solution processor is adapted for computing the location of the single point on
the structure;~~

a plurality of switches each associated with a respective slave antenna; and

~~said position solution processor being preprogrammed~~ means for operating said

switches to select one or more of said slave antennas for providing signal input
to a respective said slave receiver substantially simultaneously.